IN THE CLAIMS

Claim 1. (Currently Amended) A method of exchanging routing information between Virtual Private Network (VPN) sites, the method comprising the steps of:

receiving, by a network device, first routing information from a ~~first~~ Virtual Router (VR)-based VPN site implemented ~~according to a first~~ using a VR-based VPN model ~~by a gateway network device~~, the first routing information being associated with a first VPN;

receiving, by the network device, second routing information from a Virtual-Routing and Forwarding (VRF)-based ~~second~~ VPN site implemented ~~according to a second~~ using a VRF-based VPN model ~~by the gateway network device~~, the second routing information also being associated with the first VPN; and

storing ~~said~~ the first routing information and ~~said~~ the second routing information together in a common ~~in a~~ routing table for the first VPN.

Claim 2. (Currently Amended) The method of claim 1, wherein ~~at least one of~~ the routing table ~~and~~ or entries in the routing table ~~is~~ are ~~transmitted to a network device~~ used to facilitate transmission of data between the first VPN site and the second VPN site.

Claim 3. (Currently Amended) The method of claim 1, further comprising utilizing the routing table by the ~~gateway~~ network device to facilitate transmission of data between the first VPN site and the second VPN site.

Claim 4. (Currently Amended) The method of claim 1, further comprising transmitting, by the ~~gateway~~ network device, the first routing information to the second VPN.

Claim 5. (Currently Amended) The method of claim 1, further comprising transmitting, by the ~~gateway~~ network device, the second routing information to the first VPN.

Claims 6-7. (Canceled)

Claim 8. (Currently Amended) The method of claim 1, wherein the first virtual router protocol connection is based on at least one of Open Shortest Path First (OSPF), Integrated Intermediate System to Intermediate System (Integrated IS-IS), Routing Information Protocol (RIP), and Border Gateway Protocol (BGP), which is used to exchange routing information over the VPN ~~tunnel~~.

Claim 9. (Original) The method of claim 1, wherein the second virtual router protocol connection is based on MultiProtocol Border Gateway Protocol (MP-BGP).

Claim 10. (Original) The method of claim 1, wherein the routing table comprises entries comprising a VPN identifier associated with the first routing information, and a VPN identifier associated with the second routing information.

Claim 11. (Original) The method of claim 10, wherein the entries further comprise the first routing information and the second routing information.

Claim 12. (Currently Amended) The method of claim 11, wherein the first routing information is a route from the ~~gateway~~ network device to the first VPN site, and wherein the second routing information is a Border Gateway Protocol (BGP) next hop attribute and MultiProtocol Label Switching (MPLS) VPN label.

Claim 13. (Currently Amended) The method of claim 12, further comprising the steps of:

establishing a first secure tunnel between the first VPN site and the ~~gateway~~ network device, and wherein the step of receiving first routing information utilizes the first secure tunnel; and

establishing a second secure tunnel between the second VPN site and the ~~gateway~~ network device, and wherein the step of receiving second routing information utilizes the second secure tunnel.

Claim 14. (Currently Amended) A method of interconnecting a Virtual Private Network (VPN) tunnel between a VPN site implementing a Virtual Router based VPN (VR-based VPN), and a

VPN site implementing a VPN Routing and Forwarding table based VPN (VRF-based VPN), the method comprising the steps of:

collecting routing information from the VR-based VPN;

collecting routing information from the VRF-based VPN; ~~and~~

correlating the routing information from the VR-based VPN and the routing information from the VRF-based VPN; and

storing the correlated routing information in a VPN routing information base.

Claim 15. (Original) The method of claim 14, further comprising the step of:

disseminating the correlated routing information to the VR-based VPN and the VRF-based VPN.

Claim 16. (Original) The method of claim 14, further comprising the steps of:

receiving a data packet having a header from the VR-based VPN;

ascertaining routing information from the header;

obtaining correlated routing information from the VPN routing information base; and

modifying the header using the correlated routing information.

Claim 17. (Original) The method of claim 16, further comprising the step of:

transmitting the data packet with the modified header to the VRF-based VPN.

Claim 18. (Original) The method of claim 14, further comprising the steps of:

receiving a packet having a header from the VRF-based VPN;

ascertaining routing information from the header;

obtaining correlated routing information from the VPN routing information base; and

modifying the header using the correlated routing information.

Claim 19. (Original) The method of claim 18, further comprising:

transmitting the data packet with the modified header to the VR-based VPN.

Claim 20. (Original) The method of claim 14, further comprising the step of:

translating quality of service information between the VR-based VPN and the VRF-based VPN.

Claim 21. (Original) The method of claim 14, further comprising the step of:

transmitting the correlated routing information to a network device configured to handle data traffic on the VPN tunnel between the VPN site implementing the VR-based VPN and the VPN site implementing the VRF-based VPN.

Claims 22-23. (Canceled)

Claim 24. (Currently Amended) A Virtual Router – Virtual Routing and Forwarding (VR-VRF) network device, comprising

a first protocol connection for interfacing with a first Virtual Private Network (VPN) tunnel instantiated according to a ~~first~~ Virtual Router (VR)-based VPN model;

a second protocol connection for interfacing with a second VPN tunnel instantiated according to a ~~second~~ Virtual Routing and Forwarding (VRF)-based VPN model;

a routing table configured to ~~associate~~ correlate routing information from the first VPN tunnel with routing information from the second VPN tunnel.

Claim 25. (Currently Amended) The network device of claim 24, wherein the routing table contains entries, each entry comprising a first tunnel VPN ID, a first tunnel route information, a second tunnel VPN ID, and a second tunnel route information.

Claim 26. (Canceled)

Claim 27. (Currently Amended) The network device of claim 25 ~~claim 26~~, wherein the routing table contains a virtual router VPN identifier, a virtual router route information, a VRF VPN identifier, and a Border Gateway Protocol (BGP) next hop and MultiProtocol Label Switching (MPLS) VPN label.